ORIGINAL ARTICLE

Lower Backache after Pelvic Surgeries can be an Indicator of Tuberculosis of Lumbar Spine

MUMTAZ ALI, SHAKIR ULLAH, MUHAMMAD ISHAQ
Adnan Ahmed, Waheed Alam
Department of Neurosurgery, Lady Reading Hospital, Peshawar– Pakistan

ABSTRACT

Objective: *To find out that lower backache after pelvic surgeries can be an indicator of tuberculosis of lumbar spine.*

Materials and Methods: *It was retrospective study performed in Lady Reading Hospital Peshawar at Neuro-surgical Department from Jan. 2012 to Dec. 2015 of 4 years duration. Patients who presented with backache after pelvic surgeries and diagnosed as tuberculosis lumbar spine were included in this study and other cases of tuberculosis lumbar spine without pelvic surgeries were excluded from this study.*

Results: *There were 11 patients, 4 (36.3%) were female and 7 (63.7%) were male. Mean age was 58 years and age range was from 35 to 73 years. Three patients (27.3%) had gone through haemorrhoidectomy, 2 (18%) had done TURP (Transurethral prostatectomy), 2 (18.1%) had done transvaginal hysterectomy and other 2 (18.1%) had gone uterine dilatation curettage (D&C). Only 1 (9.1%) patient had done manipulation for lower backache elsewhere.*

Conclusion: *Lower backache after pelvic surgeries is an alarming sign for tuberculosis lumbar spine and patients should be evaluated by hematological and radiological images like, CT and MRI of lumbosacral spine.*

Key words *Lower backache, pelvic surgeries, lumbar tuberculosis, MRI.*

INTRODUCTION

Tuberculosis is the chronic destructive disease and it is the leading cause of morbidity all over the world. Although, the tuberculous spondylitis is a less common, however, it is the most serious form of skeletal tuberculosis.[1]

Spinal tuberculosis is one of the oldest diseases known to mankind and it has been found dating back to 3400 BC in Egyptian mummies. It is also known by Pott's spine, due to its description by Sir Pervival Pott in 1779.[2]

Extra pulmonary tuberculosis makes 15 – 20% of all cases and spinal tuberculosis accounts for 50% of all skeletal tuberculosis cases.[3] Thus spine is the most common skeletal site, followed by hip and knee joints tuberculosis.

Spinal tuberculosis presents in different forms but back pain is the major symptom[4] and treating physicians will need to face its initial management in many patients. The absence of fever in a high percentage of cases, makes it is difficult to consider infection as the cause of the pain.[5] Other characteristics are local tenderness, stiffness and spasm of the muscle, an abscess (cold), gibbus and a clear spinal deformity. Cold abscess presents with backache and other signs of inflammation.[1] Potts disease remain a serious problem causing paraplegia. It should be kept in mind, when patient present with neurological finding suggestive of spinal card compression and spinal deformity.[6]

For the diagnosis of spinal tuberculosis, MRI is considered the method of choice because it has both high sensitivity and specificity. Signal changes occur early in the development of the disease, when no other image modality defines lesions. It can detects initial infective focus as inflammatory edema.[7] It can detects bony involvement and swelling of soft tissue.[8]

Date of Submission: 18-9-2017
Date of Printing: 15-12-2017

Chemotherapy is the main state of treatment for tuberculosis. Patients having active tuberculosis of spine with progressive neurological deficit from spinal card or cauda equine compression, surgical decompression and fusion is indicated. However, the Medical Research Council (MRC) of the United Kingdom (UK) studies have shown that conservative and operative treatment could produce the same outcome after 15 years followup.[9] Laminectomy and debridement are adequate for intraspinal granulomatous tissue in the absence of significant bone destruction, however when vertebral body involvement has produced wedging and kyphosis, aggressive debridement and fusion are indicated to prevent delayed instability and progression of disease.[10]

Prognosis in the tuberculous spine is quite good in patients without neurological deficit and deformity. 82 – 95% cases respond to medical (anti-tuberculous) treatment alone in the form of pain relief, prevention of spinal deformity and improving neurological deficit.[2]

MATERIALS AND METHODS

It was a retrospective study of 11 cases who had undergone pelvic surgeries (haemorrhoidectomy, transurethral prostatectomy, transevaginal hysterectomy, dilatation and curettage and manipulation for lower backache) presented as lower backache and diagnosed as tuberculous lumbar spine. This study was conducted at Neurosurgical Department Lady Reading Hospital Peshawar from January 2012 to December 2015 of 4 years duration.

During this study, MRI was used as a tool of investigation. All the patients who presented with lower backache after pelvic surgeries for various reasons and diagnosed as tuberculous lumbar spine on MRI were included in the study and patients with spinal tuberculosis due to other reasons apart from pelvic surgeries were excluded from the study. Hematological investigation, like ESR and CRP were also adjacent considerable investigations.

RESULTS

This study included total 11 patients. There were 4 (36.3%) female and 7 (63.3%) male. Age range was 35 – 73 years. Mean age was 58 years. Out of these patients, 3 (27.3%) had gone through haemorrhoidectomy, 2 (18.1%) had gone through TURP (Transurethral prostatectomy) for enlarged prostate and patients who had gone through transevaginal hysterectomy were 2 (18.1%) and other 2 (18.1%) patients had done dilatation and curettage. 1 (9.1%) patient had done surgery for and fissure and another 1 (9.1%) patient had gone through manipulation for lower backache.

MRI was used as a tool of investigation and all of the patients treated successfully with anti-tuberculous therapy and lumbar corsette without any surgical manipulation.

DISCUSSION

According to the Global Tuberculosis Control WHO Reports, Pakistan is one of the countries, having highest burden for tuberculosis.[4] Tuberculosis of the spine is the most common disease in developing countries. Male dominance in our study is in accordance with observation made by Jalleh R.D.[8] Although lumbar spine tuberculosis is less common as compared to thoracolumbar (45%) and thoracic spine (23.4%), we studied only those cases which presented with lower backache after pelvic surgeries. It is suggested that surgical intervention provokes the hidden tuberculosis lumbar spine to manifest itself in the form of lower backache. Our mean age group was 58 years, although lumbar spine tuberculosis is common in young adults. MRI was found to be the most valuable investigation for assessment and treatment of tuberculosis of spine. It gives more information about site, soft tissue involvement, number of vertebra involved, angle of kyphosis, degree of cord compression and severity of bone disease.[8] We also investigated the patient through CT and X-Ray lumbar spine. Moreover, we also evaluated patient clinically by taking proper history especially about lower backache and right time sweating and rise in temperature, and biochemically by checking rise in ESR and CRP.

In our study, conservative treatment in the form of anti-tuberculosis therapy for 9 months and lumbar braces were the main treatments which gave excellent results. Anti-tuberculosis drugs can reach the tuberculous caseous materials and cavities in spine and provide good outcome. However, if there is severe bony involvement causing cord or root compression, surgical decompression is the only best treatment.8

CONCLUSION

Lower backache after pelvic surgery is an alarming condition, and if not responding to simple pain killer then lumbar spine should be checked for tuberculosis.

MRI should be advised and in radiologically suggestive cases, anti-tuberculosis treatment with supportive measures like analgesica and lumbar corsette should be advised if there is no abscess or cord/root compression.

Address for Correspondence:
Dr. Mumtaz Ali
Department of Neurosurgery
Lady Reading Hospital, Peshawar– Pakistan

REFERENCES

1. Moon M.S. Tuberculosis of Spine: Current Views in Diagnosis and Management. Asian Spine Journal, 2014; 8 (1): 91-111. Doi: 10.4184/asj.2014.8.1.97.
2. Garg RK, Somvanshi DS. Spinal tuberculosis: A review. The Journal of Spinal Cord Medicine, 2011; 34 (5): 440-454. Doi: 10.1179/2045772311Y.0000000023.
3. Muhammad T, Baloch NA, Khan A. Management of spine tuberculosis – a metropolitan city based survey among orthopaedic and neurosurgeons. J Pak Med Assoc. 2015; 65 (12): 1256-60.
4. Abbas A, Rizvi SRH, Mahesri M, Salahuddin HRA. Conservative management of spine tuberculosis: initial series from Pakistan. Asian Spine J. 2013; 7 (2): 73-80.
5. Colmenero JD, Mesa JDR, Jimenez RS, Sobrino B, Morata P. Establishing the diagnosis of tuberculosis vertebral osteomyelitis. Eur Spine J. 2013; 22 (Suppl. 4): 579-86.
6. Turget M. Spinal tuberculosis (Pott's disease) its clinical presentation, surgical management and outcome – A survey study on 694 patients. Neurosurg Rev. 2001 Mar; 24 (1): 8-13.
7. Rivas – Garcia A, Sarria – Estrada S, Torrents – Odin C, Casas – Gomila L, Franquet E. Imaging findings of Pott's disease. European Spine Journal, 2013; 22 (Suppl 4): 567-578.
8. Bajwa G.R. Evaluation of the role of MRI in spinal tuberculosis: A study of 60 cases. Pak J Med Sci. 2009; 25 (6): 944-947.
9. Cheung WY, Luk KDK. Clinical and radiological outcomes after conservative treatment of TB spondylitis: is the 15 years' follow-up in the MRC study long enough? European Spine Journal, 2013; 22 (Suppl. 4: 594-602. Doi: 10.1007/s00586-012-2332-x.
10. Nassbaum ES, Rockswold GL, Bregman TA, Erickson DL, Seljeskog EL. Spinal tuberculosis: a diagnostic and management challenge. J Neurosurg. 1995 Aug; 83 (2): 243-7.

AUTHORS DATA

Name	Post	Institution	E-mail	Role of Authors
Dr. Mumtaz Ali	Professor	Department of Neurosurgery, Lady Reading Hospital, Peshawar – Pakistan		Supervision
Dr. Shakir Ullah				Data Collection
Dr. Muhammad Ishaq				Research
Dr. Adnan Ahmed				Discussion
Dr. Waheed Alam				Proof Reading

Date of Submission: 18-9-2017
Date of Printing: 15-12-2017
Peer Reviewed by Dr. Babar Butt, Fauzia Sajjad, Nabeel Chaudary and Chief Editor Prof. Dr. Muhammad Anwar Chaudary and others.